## **CLAIMS**

1. A process for obtaining polyglycolyl urea from aromatic diglycinates to insulate electric conductors, without forming HCN polluting residues, characterized because it consists of the following steps: in a reactor, under stirring and reflux conditions, reacting a mixture of methyl bromopropionate and methylenedianiline in a  $C_1 - C_4$  aliphatic solvent, at atmospheric pressure, up to solvent reflux temperature; adding a catalizer, preferably of triethylamine, at a rate of 0.178 l/hour per Kg of product during a reaction time of 3 to 4 hours and reflux till 19 hours; solvent separation through atmospheric distillation; crystallization at 50° C; mother waters filtration and purification through washing with water and drying of the methyl diglycinate obtained; a load of methyl methyl diglycinate is prepared in a reactor and cresylic acid is added, at room temperature, under stirring, till solution is complete; methylene diisocyanate is added, under stirring, up to a temperature of 60° C, during 2 to 4 hours till a product viscosity of 44 to 47 seconds at 25° C is reached; addition of triethylenediamino or 1,4 diazobicyclo (2,2,2) octane; temperature increase up to 180° C during a 6-hour period; then distillation up to a temperature of 200° C; cooling at 70° C and a polyglycolyl urea hydantoin resin of the following formula is obtained:

$$Ar_{I} = \begin{bmatrix} O \\ | | \\ C \\ N \\ N \\ | | \\ C - CH \\ | | | \\ O \\ CH_{3} \end{bmatrix}$$

where  $Ar_1$  is a substituted aromatic compound or a substituted diphenylalkyl and 2 < n < 500 with a viscosity (Cp) = 4,800 at 15% solids.

- 2. The process for obtaining polyglycolyl urea according to claim 1, characterized because the  $C_1 C_4$  solvent is preferably methanol.
- 3. The process according to claim 1, characterized because the reflux temperature of the  $C_1$   $C_4$  aliphatic solvent is 58  $63^{\circ}$ C.
- 4. The process according to claim 1, characterized because the methyl methyl diglycinate obtained is dried with hot air at 40° C and in an obscure setting and corresponds to a stereoisomer mixture with a melting point of 95 116° C, of the following general formula:

## Ar<sub>1</sub> [NH -CH(CH<sub>3</sub>)-COOCH<sub>3</sub>]<sub>2</sub>

5. The process for obtaining polyglycolyl urea according to claim 1, characterized because the residues of the mother waters are by-products of the reaction of triethylamine bromohydrate salts which are neutralized with sodium hydroxide and separated through secondary distillation obtaining sodium bromide in solution and 90% triethylamine.